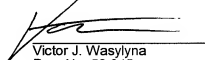


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Victor J. Wasylyna
Reg. No. 52,345

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of:

Applicant : Keeler, Sr.
Serial No. : 10/691,480
Filed : October 21, 2003
Title : METHOD FOR PACKAGING CRABMEAT
Docket : 424532-00002
Examiner : Jyoti Chawla
Art Unit : 1761

Commissioner for Patents
Post Office Box 1450
Alexandria, Virginia 22313-1450

Sir:

REPLY BRIEF

This paper is filed in response to the Examiner's answer (the "Answer") mailed on April 4, 2008, and is accompanied by a request for an oral hearing.

ARGUMENT

The Answer fails to focus on the critical issue in this case and contains numerous inaccurate and misleading statements.

There is no dispute that the prior art fully discloses a pasteurized crabmeat product packaged in a flexible pouch. One need only look to the Peterson reference for such a teaching. Nonetheless, the Answer continues page after page, citing reference after reference, to establish this undisputed fact.

The core issue before the Board is whether it would have been obvious to a person having ordinary skill in the art to provide a pasteurized crabmeat product packaged in a flexible pouch, wherein a specific volume of ambient air is introduced to the flexible pouch to provide an ambient air to crabmeat ratio of about 13 to 20 percent by volume. It is respectfully submitted that such an improvement over the prior art is both novel and not obvious. In support of this position, a selection of the Examiner's errors committed *vis a vis* the cited prior art references are discussed below.

The Doerter Reference

The Doerter reference discloses a process for packing shellfish including the step of filling the container with a mixture of carrageenan and water that displaces all the air from the container. Nonetheless, on page 5 of the Answer, the Examiner argues that "[s]ince the surrounding air (ambient air) will enter the package when the package is open, Doerter teaches of placing a volume of air (ambient air) in the packaging container before sealing the container after packing." The Examiner cited to col. 3, ll. 11-16 of the Doerter reference to support this erroneous assertion.

Col. 3, ll. 11-16 of the Doerter reference reads in its entirety:

In Step E of the process, the container is sealed hermetically. This is accomplished by any commercial or proprietary process. It is important that the quantity of prepared mixture is correct in order to avoid entrapment of air and to not interfere with the proper closure of the container.

(Emphasis added.) Therefore, not only does the Doerter reference not teach placing a volume of air into the packaging container, the Doerter reference expressly teaches avoiding enclosing air in the sealed container.

Accordingly, the Examiner's reliance on the Doerter reference, which teaches away from an ambient air to crabmeat ratio of about 13 to 20 percent by volume, is clear and reversible error. If anything, the Doerter reference is evidence of non-obviousness in that it exemplifies the prior art understanding that pasteurized crabmeat should be packaged with a minimized amount of air, contrary to the teachings of the present application.

The Peterson Reference

As mentioned above, the Peterson reference establishes the state of the prior art before the introduction of the claimed product and method of the present application. Specifically, the Peterson reference discloses a pasteurized crabmeat product packaged in a flexible pouch. Furthermore, the Peterson reference acknowledges that pasteurization does not inactivate all spores of certain strains of *Clostridium botulinum*, a food-borne anaerobic bacteria. The fact that certain bacteria survive pasteurization was known in the prior art and is discussed in the background section of the present application. Hence the distinction between pasteurization and sterilization.

However, the Peterson reference makes no teaching or suggestion whatsoever of introducing a specific volume of ambient air to the flexible pouch to provide an ambient air to crabmeat ratio of about 13 to 20 percent by volume. Nor does the Examiner assert anywhere in the Answer that the Peterson reference makes such a teaching or suggestion. Therefore, the Peterson reference is of no probative value with respect to the core issue in this case. As such, the Examiner's reliance on the Peterson reference for anything more than establishing that a pasteurized crabmeat product packaged in a flexible pouch was known in the prior art is clear and reversible error.

The Byrd Reference

The Byrd reference discloses packaging shellfish meat in containers or cans wherein:

the containers or cans so packed are vacuumized by any known method, if possible, but, if not, are packed more tightly in order to reduce to the minimum undesired air space between the particles of crab meat. The containers are then hermetically sealed.

(Col. 2, ll. 44-48 (emphasis added).) Therefore, as was conventional in the prior art, the Byrd reference expressly teaches minimizing the amount of air in the packaging container. In contrast, the claims of the present application encourage and require a certain minimum and maximum

quantity of air in the final package.

The Examiner cites to the Byrd reference as teaching “the desirability of reduced volume of air (ambient air) in packaged crabmeat.” (Answer, p. 6.) This statement is neither accurate nor relevant. The Byrd reference does not teach the desirability of a reduced amount of air, rather it teaches the desirability of minimizing the amount of air. Therefore, by teaching that the amount of air in the final package should be minimized, the Byrd reference teaches away from the pending claims of the present application.

Accordingly, the Byrd reference is of no relevance to the core issue in this case. Indeed, like the Doerter reference, the Byrd reference supports non-obviousness in that it further exemplifies the prior art understanding that shellfish should be packaged with a minimized amount of air.

The Sugisawa Reference

The Sugisawa reference discloses packaging dried and broiled fish in a hermetically sealed container and heat sterilizing the sealed container. Prior to sealing, a vacuum process is used to reduce the air content in the container to “25% or less, preferably 15% or less,” which corresponds to air to fish ratios, calculated by volume, of 33 percent or less and 18 percent or less. (Col. 3, l. 11 (emphasis added).) No minimum value for the amount of air in the package is established, rather the Sugisawa reference only establishes an upper limit (i.e., a maximum value).

Thus, like the Doerter and Byrd references discussed above, the Sugisawa reference teaches minimizing (“15% or less”) the amount of air in a package subjected to a heat treatment process. The Sugisawa reference certainly does not disclose that a certain minimum amount of air in the package can be advantageous. Therefore, the Sugisawa reference, like the Doerter and Byrd references, teaches away from the pending claims of the present application.

The Examiner argues that the preferable upper limit of 15 percent air (air to fish ratio of 18 percent by volume) falls within the claimed ambient air to crabmeat ratio range of 13 to 20 percent by volume and, therefore, establishes a *prima facie* case of obviousness. (Answer, p. 30.) However, obviousness based upon overlapping ranges is rebutted where (1) the prior art teaches away from the claimed invention and (2) the claimed invention provides new and unexpected results relative to the prior art. *Iron Grip Barbell Co. v. USA Sports, Inc.*, 392 F.3d

1317, 1322 (Fed. Cir. 2004). As discussed above, the Sugisawa reference fails to appreciate the advantages, such as reduced aerobic and anaerobic bacterial growth, that a certain minimum quantity of air provides to a sealed and pasteurized crabmeat product. Therefore, the Examiner's assertions of obviousness based upon the Sugisawa reference have been fully rebutted.

The Air Liquide Reference

The Air Liquide reference discloses packaging fresh fish fillets in plastic trays covered with a plastic film. The ambient air in the container is removed and replaced with a modified atmosphere of oxygen and carbon dioxide. The oxygen component of the modified atmosphere, which comprises between 20 and 40 percent of the modified atmosphere, inhibits the growth of anaerobic germs.

Thus, the Air Liquide reference discloses packaging fresh fish in film covered trays with a modified atmosphere gas mixture. The Air Liquide reference does not disclose pasteurization because the disclosed modified atmosphere packaging technique is not compatible with such a heat treatment process.

In contrast, the pending claims of the present application are directed to packaging crabmeat in a flexible pouch with ambient air and then pasteurizing the packed pouch. Furthermore, as conceded by the Examiner on page 7 of the Answer, the Air Liquide reference is "silent" as to a ratio of gas to meat, and certainly does not disclose an ambient air to crabmeat ratio of 13 to 20 percent by volume.

Nonetheless, on page 8 of the Answer, the Examiner argues that the Air Liquide reference teaches "[p]ackaging of fish, crabmeat or other seafood in flexible packages." This is simply not true. As discussed above, the Air Liquide reference teaches packaging fresh fish (not pasteurized crabmeat) in film covered trays (not flexible pouches) with a modified atmosphere (not ambient air).

Furthermore, the Examiner has failed to identify any reason why a modified atmosphere technique for packaging fresh fish in film covered trays is relevant to the patentability of a pasteurized crabmeat product packaged in a flexible pouch. Applicants submit that it is not. The packaging technique disclosed in the Air Liquide reference is not compatible with pasteurization – it is used to package fresh fish – and certainly it is not compatible with flexible pouches that are ultimately pasteurized. Nor does the Air Liquide reference make any mention or suggestion

that the disclosed technique is compatible with packaging systems other than film covered trays for packaging fresh fish, such as pasteurized flexible pouches. Therefore, a person skilled in the art would not look to the Air Liquide reference when seeking to improve upon pasteurized flexible pouches.

Still furthermore, as discussed above, packages that undergo a heat treatment process, such as pasteurization, typically are sealed in a manner that minimizes the amount of air space within the package before initiating the heat treatment process. This is done to avoid the problems associated with gas expansion during heat treatment, such as package damage and increased space requirements. (Specification, p. 5, ¶ 18.) Hence the prior art desire to minimize enclosed air space in heat treated packages.

Nonetheless, the Examiner argues that the Air Liquide reference, which discloses introducing a modified atmosphere gas mixture to a package, but does not disclose using a heat treatment process, should be combined with prior art references, such as the Doerter, Byrd and Sugisawa references, which use heat treatment processes and encourage minimizing air space within the treated package. For the reasons expressed above, it is submitted that the differences between the Air Liquide reference and the Doerter, Byrd and Sugisawa references are so substantial that the Examiner's attempt to combine the same is clear and reversible error.

Thus, the Air Liquide reference is only relevant to the extent that it discloses the undisputed fact that it was known that anaerobic bacteria do not grow in an atmosphere having sufficient oxygen. Indeed, by definition, bacteria that are "anaerobic" do not grow in aerobic environments (i.e., environments having sufficient oxygen). Therefore, the Air Liquide reference is of little probative value to the present obviousness inquiry.

Accordingly, the Air Liquide reference is specifically directed to modified atmosphere packaging of fresh fish and makes no suggestion whatsoever that anaerobic bacterial growth can be inhibited in pasteurized crabmeat packaged in flexible pouches by introducing a specific quantity of ambient air to achieve an ambient air to crabmeat ratio of 13 to 20 percent by volume. Indeed, as discussed above, the prior art of record teaches away from intentionally introducing air to food packaging that undergoes a heat treatment process, thereby rendering the Air Liquide reference, absent an appropriate linking reference, insufficient to establish obviousness.

The Ueyama Reference

On page 12 of the Answer, the Examiner concedes that the Ueyama reference is “silent regarding the atmosphere desired in the package.” Therefore, the Ueyama reference is of no probative value with respect to the core issue in this case.

The Lett Reference

The Lett reference discloses a method for packaging crab in a pouch by displacing air in the pouch with brine and vacuum sealing the pouch. Therefore, like the Doerter, Byrd and Sugisawa references, the Lett reference exemplifies the prior art understanding that air within packaging vessels should be minimized. The Lett reference certainly does not disclose an appreciation for the advantages associated with an ambient air to crabmeat ratio of about 13 to 20 percent by volume.

The Walker Reference

The Walker reference discloses packaging crabmeat by impregnating the crabmeat with a specific type of chemical solution, pasteurizing the impregnated crabmeat and heat sealing the container. The filled containers are left unsealed during the pasteurization process to avoid damaging the containers as a result of rapid air expansion during the heat treatment process. (Col. 6, ll. 35-40.) The Walker reference makes no mention of controlling the quantity of air in the sealed container, let alone obtaining an air to crabmeat ratio within the container of about 13 to 20 percent by volume. Therefore, the Walker reference is of no probative value with respect to the core issue in this case.

Conclusion

In conclusion, while pasteurized crabmeat packaged in flexible pouches has been known in the prior art, none of the cited references obviate the advantageous improvement of introducing a volume of ambient air to the flexible pouch to provide an ambient air to crabmeat ratio of about 13 to 20 percent by volume. Rather, as discussed above, the prior art references either (1) teach away from pasteurizing containers sealed with ambient air, (2) are silent regarding air content in pasteurized containers or (3) are not directed to heat treated packaging whatsoever.

Accordingly, it is respectfully submitted that the pending claims of the present application are directed to a novel and non-obvious improvement over the prior art of record.

U.S. Ser. No. 10/691,480
Docket No. 424532-00002
Reply Brief

Prompt and favorable action is respectfully requested.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Victor J. Wasylina', is written over a horizontal line.

Victor J. Wasylina
Reg. No. 52,345

THOMPSON HINE LLP
Post Office Box 8801
Dayton, Ohio 45401-8801
Phone: (937) 443-6812
E-mail: IPGroup@ThompsonHine.com
522980.1